

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/014444

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C08G61/12 H01G9/00 H01M10/40

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08G H01G H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| X          | US 4 568 483 A (KOEHLER GERNOT ET AL)<br>4 February 1986 (1986-02-04)<br>claims; examples 5,7,8<br>-----                  | 1-22                  |
| Y          | US 5 306 443 A (MATSUMOTO HITOSHI ET AL)<br>26 April 1994 (1994-04-26)<br>column 19, lines 52-59; examples 54-63<br>----- | 1-22                  |
| X          | US 4 769 430 A (NAITOH SHIGEKI)<br>6 September 1988 (1988-09-06)<br>claims; examples<br>-----                             | 1-22                  |
| X          | EP 0 340 826 A (PHILIPS NV)<br>8 November 1989 (1989-11-08)<br>page 4, lines 10-27<br>page 8, line 25<br>-----            | 1-11                  |
|            | -/--  |                       |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

14 December 2004

Date of mailing of the international search report

08.04.2005

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International Application No  
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| C. (continued) DOCUMENTS CONSIDERED TO BE RELEVANT |  |                       |
|--|--|-----------------------|
| Category   | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
| X  | US 5 093 033 A (WEGENER PETER ET AL)<br>3 March 1992 (1992-03-03)<br>claims; example 19<br>-----   | 1-11                  |
| X  | JP 02 098915 A (SHOWA DENKO KK)<br>11 April 1990 (1990-04-11)<br>cited in the application<br>the whole document<br>& PATENT ABSTRACTS OF JAPAN<br>vol. 0143, no. 08 (E-0947),<br>3 July 1990 (1990-07-03)<br>& JP 02 098915 A (SHOWA DENKO KK),<br>11 April 1990 (1990-04-11)<br>abstract<br>----- | 1-11                  |
| X  | JP 11 292957 A (CANON INC)<br>26 October 1999 (1999-10-26)<br>the whole document<br>& PATENT ABSTRACTS OF JAPAN<br>vol. 2000, no. 01,<br>31 January 2000 (2000-01-31)<br>& JP 11 292957 A (CANON INC),<br>26 October 1999 (1999-10-26)<br>abstract<br>-----  | 1-22                  |
| Y  | US 4 959 430 A (HEINZE JUERGEN ET AL)<br>25 September 1990 (1990-09-25)<br>the whole document<br>-----   | 1-22                  |

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### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-22

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-22

Pi-conjugated copolymers comprising pyrrole and thiophene units, and a production method thereof  
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2. claims: 23-32

A method for producing solid capacitors  
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/014444

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s)   | Publication<br>date  |
|---|---|---------------------|--|--|
| US 4568483                                | A | 04-02-1986          | DE 3223544 A1<br>DE 3366054 D1<br>EP 0099984 A1<br>JP 1713344 C<br>JP 3079371 B<br>JP 59018726 A   | 29-12-1983<br>16-10-1986<br>08-02-1984<br>27-11-1992<br>18-12-1991<br>31-01-1984   |
| US 5306443                                | A | 26-04-1994          | NONE   |  |
| US 4769430                                | A | 06-09-1988          | JP 62169820 A<br>DE 3701495 A1   | 27-07-1987<br>23-07-1987   |
| EP 0340826                                | A | 08-11-1989          | DE 68912820 D1<br>DE 68912820 T2<br>EP 0340826 A1<br>JP 1315416 A<br>JP 2730757 B2<br>US 5232630 A   | 17-03-1994<br>04-08-1994<br>08-11-1989<br>20-12-1989<br>25-03-1998<br>03-08-1993   |
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| JP 2098915                                | A | 11-04-1990          | JP 2922521 B2  | 26-07-1999   |
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| US 4959430                                | A | 25-09-1990          | DE 3813589 A1<br>DE 3843412 A1<br>CA 1337950 C<br>DE 58909864 D1<br>EP 0339340 A2<br>JP 1313521 A<br>JP 2721700 B2<br>US 4987042 A<br>US 5035926 A   | 02-11-1989<br>28-06-1990<br>16-01-1996<br>03-02-2000<br>02-11-1989<br>19-12-1989<br>04-03-1998<br>22-01-1991<br>30-07-1991   |